Cont

1 MAY 1985 LOGGED

ICS-85-4057 //
24 April 1985

MEMORANDUM FOR: Director, Intelligence Community Staff

VIA: Deputy Director, Intelligence Community Staff [redacted] STAT 25 APR 1985

FROM: Chairman, IHC

SUBJECT: Contract Approval

1. Action Requested: Request your approval to submit the attached RFP in support of the Joint Maritime Information Element (JMIE) program.

2. Background: The RFP has been reviewed and approved by the JMIE System Design Working Group whose members represent the founding agencies of JMIE: ONI, DEA, DOE, CIA, US Customs Service, US Coast Guard, Maritime Administration, and the Military Sealift Command. The contractual effort is being jointly funded by the agencies sponsoring JMIE and contractual support is being provided by the DDI Contracts Office.

The principal objectives of the contractual effort are to delineate requirements, provide system design options, and assemble the financial data necessary for participating Federal organizations to decide whether JMIE should be implemented. The IHC staff will continue to chair the JMIE System Design Working Group and will act as the Contracting Officer's Technical Representative (COTR) for this contract. Should a subsequent decision to implement the JMIE be made, we expect to relinquish our leadership role to one of the JMIE sponsors, probably the Navy.

3. Recommendation: That you approve this RFP and sign the attached DD Form 2420.

[redacted] STAT

Attachment: a/s

APPROVED:

[redacted] STAT

APR 30 1985

Director, Intelligence Community Staff — Date

DISAPPROVED:

Director, Intelligence Community Staff — Date

SUBJECT: Contract Approval

Distribution:
Orig - Adse (Return to IHC)
1 - D/ICS
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ICS/IHC/ [redacted] (23 Apr 85) STAT

DCI/ICS 85-4058
25 April 1985

MEMORANDUM FOR: [redacted] STAT
Chief, DDI Contract Team

FROM: [redacted] STAT
Chairman, Intelligence Information
Handling Committee

SUBJECT: Joint Maritime Information Element (JMIE) Contract

1. The statement of work and the contract requirements for JMIE have been approved and are forwarded as attachments to you for contractual assistance. In support of the JMIE contract effort, we request that a pre-bidders conference be held following the distribution of the request for proposal (RFP) to suggested vendors. Further request that you inform us when distribution has been completed so that we can make appropriate arrangements for the conference.

2. It is our intent to selectively release the RFP to corporations who specialize in system engineering and design analysis so that the recommendations received will be unbiased. To provide added insurance, we request that an exclusion clause be incorporated in this contract, so that the corporation who performs this JMIE contract will be excluded from bidding on a follow-on contract for system implementation. However, this exclusion clause should not exclude the corporation from providing contractual quality assurance support to the JMIE program.

3. Finally, request that I be designated the Contracting Officer's Technical Representative (COTR) for this contract and that questions related to the processing of this contract be addressed to [redacted] ICS/IHC, STAT
[redacted] STAT

Attachments: a/s

Next 1 Page(s) In Document Denied

JOINT MARITIME INFORMATION ELEMENT (JMIE)
CONTRACT REQUIREMENTS

Period of Performance

The contract shall be effective on the date of the Contracting Officer's signature and shall remain in effect for a period not to exceed nine months. The contract consists of three PHASES encompassing four tasks. All required work and reports shall be completed and delivered within the specified nine month period.

Contractor Level of Effort

An estimated 1.5 person years of professional effort will be required from award of contract to date of completion. Individuals proposed on this contract will be identified as key personnel and are committed to work on this contract. The basic requirement for each team member is a minimum of five years current related technical information handling systems experience. In addition, prior experience with one or more of the founding members of JMIE, i.e., Office of Naval Intelligence, Drug Enforcement Administration, Department of Energy, Central Intelligence Agency, US Customs Service, US Coast Guard, Maritime Administration, and the Military Sealift Command, is desirable. Proposed contractor personnel should possess knowledge/current experience in the following major areas:

requirements analysis,
systems engineering,
telecommunications and networking,
information storage and retrieval,
data base management systems,
legal aspects of law enforcement/Intelligence Community interaction,
computer security policies and procedures, and
vendor hardware and software product lines.

Schedule of Work

Within fourteen days after award of contract, a detailed schedule of work (Work Plan) shall be prepared by the contractor and submitted for approval to the COTR. The schedule shall include at a minimum: a detailed list of tasks to be performed for each of the three PHASES and the estimated person hours planned to be expended for each task. Any major relationship among tasks which affect the start or successful completion of a task shall be identified. The schedule of work must be kept current on a monthly basis to reflect any change. A team leader or his designate must be available to the COTR every day of the contract.

Deliverables

Contractor shall prepare three documents, one at the completion of each PHASE:

PHASE 1: Systems Requirements and Objectives (Task 1 and 2),
PHASE 2: System Design Options (Task 3), and
PHASE 3: Cost Estimate and Recommendations (Task 4).

Each of the three deliverables shall be produced in draft and final. Thirty copies of each deliverable shall be delivered to the COTR for distribution to members of the JMIE System Design Working Group. The contractor shall review the contents of each draft deliverable with the JMIE Working Group. The Contracting Officer's Technical Representative (COTR) shall approve each PHASE deliverable prior to the contractor proceeding to the next PHASE.

Monthly Progress Reports

Progress reports must be prepared by the Project Manager and be submitted to the Contracting Officer and the COTR by the fifth of each month covering the previous month's activities. This report shall cover general progress for the month, deliverables from the vendor, critical problem areas, contractor recommendations, decisions made, hours expended and hours left, and any proposed revision to the schedule or milestones. Between progress reports, a minimum of two verbal progress reports must be presented to the COTR with specific emphasis on progress made and problems encountered. A bi-monthly status briefing shall be prepared by the contractor and presented to the JMIE System Design Working Group.

Travel

Eight/one person trips within the continental US will be required.

Security Requirements

The association with the Agency shall be unclassified. The RFP for this effort shall be unclassified. All contractor or subcontractor personnel required to perform on the contract shall possess a CIA security clearance at the SECRET level. At least one active contractor team member must be cleared to the SI/TK level. Only final clearances are acceptable and the selected persons must be US citizens.

Reports produced under this contract shall be either Unclassified, Confidential, or Secret. Any information (classified or administratively controlled) acquired by the contractor as a result of his presence at a government site is official US Government information and is not to be disclosed without the specific approval of the CIA and the originating agency and is to be handled by the contractor in strict accordance with a need-to-know. The contractor shall be required to store SECRET material within the corporate facility; and therefore, must meet Agency security requirements for contractor storage of classified material.

Government Furnished Equipment

Contractors with the appropriate access clearances shall be provided temporary desk space by JMIE members when the activity requires contractor personnel to be present at a government facility. The contractor shall be provided storage for classified material that cannot be stored at corporate offices.

Size of Proposal

Responses to the JMIE RFP shall be limited to 75 technical pages.

Evaluation Criteria

Listed in descending order of importance is the criteria for evaluating proposals received in response to this JMIE Statement of Work: Technical 70%, Program Management 15%, Cost 15%.

SUGGESTED SOURCES

Analytic Methods Inc.
8381 Old Courthouse Rd.
Suite 110
Vienna, Virginia 22180
ATTN: Mr. D. E. Costales, President

BDM
McLean, Virginia

Booze Allen
4330 East West Highway
Bethesda, Md.

Geodynamics
Springfield, Virginia

Grumman Aerospace Corp.
Long Island, New York

MITRE
McLean, Virginia

ODSI Defense System Inc.
6110 Executive Blvd
Suite 320
Rockville, Md. 20852
ATTN: Mr. Ed Smith, President

RCA
Camden, New Jersey

Science Applications International Corporation
1710 Goodridge Dr.
McLean, Virginia

STATEMENT OF WORK

OBJECTIVE

The principal objective of the contractual effort outlined in this Statement of Work is to provide the design and financial data necessary to an informed determination by participating Federal organizations as to whether or not to implement the Joint Maritime Information Element (JMIE). Given an affirmative decision, the product of this effort will serve as the basis of a system implementation program. The term "system," in the present context, comprises the facilities; data handling and display resources; telecommunications; data bases--and the services they collectively provide--needed to support the operational requirements of JMIE subscribers.

BACKGROUND

Timely information on the identification, movements and activities of ships and other vessels in the maritime regions of the world is of very great value to the United States Government; significant effort and resources are expended by a large number of its component organizations to acquire and process it. Requirements for such data fall in four general use categories: national security, law enforcement, economic monitoring, and maritime safety (search and rescue). Information sources are highly diverse, and the volume of data records generated enormous, in part because of the large ship/vessel population, but also because the same unit is frequently reflected by a number of sources or multiple times by the same source. The utility of data input generated by the various available sources transcends the aforementioned use categories, i.e., information collected for a specific purpose or mission is often of equal or greater value for another. In addition, there is signficant potential for synergistic use of data acquired, particularly in national security (Intelligence) and law enforcement applications. The combination of fragmentary information from a number of sources often yields insights which exceed their sum.

The principal purpose for establishment of the Joint Maritime Information Element is creation of a mechanism for bringing together in a common data handling system the various sources and resulting data bases bearing on maritime activity so that the operational benefits indicated above may be better and more cost effectively realized. JMIE would also, when appropriate, serve as the agent of its membership in acquiring and integrating into the system additional sources of relevant information. The founding members of JMIE will be the Office of Naval Intelligence (Naval Intelligence Command), the Drug Enforcement Administration, the Department of Energy, the Central Intelligence Agency, the US Customs Service, the US Coast Guard, the Maritime Administration, and the Military Sealift Command. The Intelligence Community Staff (ICS) is coordinating the current exploratory phase of JMIE establishment and implementation. A JMIE System Design Working Group, in which all consortium members are represented, has been established and will work closely with the contractor. A parallel working group to focus on data standards has also been established.

CONTRACTOR TASKS AND DELIVERABLES

The contractor's overall task will be to prepare a system design and cost estimate for the prospective JMIE data handling system based on requirements and constraints specified and in interaction with designated representatives of consortium member agencies. Certain data relevant to the task, including a detailed functional description of participating organizations, has been developed and will be made available to the contractor.

JMIE design options will be strongly influenced by several critical factors: reliance on Navy Operational Intelligence Center (NAVOPINTCEN) SEAWATCH (see System Design Guidance Section), security of classified information, legal restrictions, and the great diversity of data types and structures to be accommodated. Of importance, in addition, is the fact that all of the participating agencies are already developing and/or using automated facilities for handling, inter alia, the kinds of data JMIE is intended to accommodate. These will probably not simply be replaced by JMIE but will have to be integrated with it. This is a constraint, insofar as it limits freedom of design, but also a potential benefit to the extent that existing hardware, software, and communications can be used and not paid for again.

The contractor, assisted by the JMIE System Design Working Group and relevant data already developed, will undertake the following tasks, producing the indicated or specified deliverables. Task results must be fully documented in accordance with Federal Information Processing Standard (FIPS)-38, at a level specified by the COTR.

PHASE 1: SYSTEM REQUIREMENTS AND OBJECTIVES

TASK #1 DATA INPUTS, OUTPUTS, AND FILES

a. Identify sources of relevant data input including all existing commercial data bases that maybe accessed in support of member efforts to be provided by or through JMIE members in terms of: volume/frequency, data duplication, timeliness, form, format, contained data elements.

b. Identify substantive nature of query responses and periodically generated reports to be required of the JMIE data base by subscribers; anticipated frequency and volume of data base access under the expected range of operating conditions, i.e., routine, crisis, etc.

c. Determine the optimum JMIE data base structure, file complement, and formats indicated by the nature of anticipated data inputs, manipulation requirements and outputs; identify requirements for translation of input data to machine-processable form or from one processable form to another.

d. Identify necessary or desirable interactions between the JMIE data base and other automated data bases belonging to JMIE subscribers or other government organizations; determine the technical and operational implications of such interaction.

e. Assess the relative compatibility of file structure and data element standards used by relevant data bases.

TASK #2 SYSTEM CONFIGURATION AND INTERFACES

a. Determine capabilities, as regards data manipulation, output, display, etc., that need to be incorporated in the JMIE subscriber terminal installation; identify subscriber requirements as to number of terminals, locations, and configurations.

b. Establish configuration and performance characteristics of JMIE central processor(s) necessary to meet subscriber requirements with acceptable system response time. Provide estimates of capacity required to accommodate later expansion of data volume and number of subscriber terminals.

c. Identify security requirements, e.g., TEMPEST, impacting selection and installation of JMIE processing and terminal hardware and associated communications.

d. Identify site requirements and space options.

e. Determine whether interconnection of JMIE system with other subscriber ADP systems (in being or under development) is required or desirable if not required; include intra and cross agency requirements; assess feasibility and technical, operational, and security impact of such interconnections.

PHASE 2: SYSTEM DESIGN OPTIONS

TASK #3 SYSTEM DESIGN

a. On the basis of data acquired through performance of Tasks #1 and #2 and guidance provided by the JMIE System Design Working Group prepare a technical design of the JMIE automated data handling system to satisfy JMIE requirements and objectives. The design should set forth in requisite detail, inter alia, the following:

(1) capabilities, capacities, and performance specifications of main processing hardware and communications interfaces;

(2) capabilities and performance parameters of operating system software and data base management system (if needed);

(3) capabilities and performance features of subscriber terminal installations; numbers of terminal installations required to meet needs of initial JMIE subscriber complement; description of variant configurations required;

(4) equipment performance parameters or modifications necessary to meet TEMPEST and other applicable electronic security requirements; site configuration features needed to meet physical security requirements: modifications required by subscriber installation;

(5) communications lines and facilities required to interconnect JMIE processing and user terminal installations; cryptographic cover requirements;

(6) interfaces with other automated processing systems; implications with respect to JMIE software, hardware compatibility, system response time, and security;

(7) optimum structure of JMIE data base; component file structure; update procedures, frequency, volume;

(8) data base access facilities; query/response capabilities; report generation; automatic alerting;

(a) impact on existing systems; and

(9) system manning requirements: computer operations, communications, data reduction, etc.

PHASE 3: COST ESTIMATE AND RECOMMENDATIONS

TASK #4 IMPLEMENTATION COST ESTIMATE

The contractor will prepare an itemized estimate of the cost of implementing the design developed under Task #3. Estimating accuracy of +10% is required; a factor of 4% will be added to reflect presumed inflation. The estimate will provide separate cost figures for the JMIE central processing complex and for each remote terminal installation including communications. The following items will be separately identified: 1) one time investment costs; 2) continuing operating costs (exclusive of personnel); and 3) system support personnel required to operate and maintain the system.

In preparing the system design and cost estimate, the contractor need not narrow equipment or software selection to a single brand and model, but may indicate several alternate choices, particularly where clear cost-performance trade-off options can be offered.

SYSTEM DESIGN GUIDANCE

Information services of the kind to be provided its subscribers by JMIE are currently offered, to a limited extent, by the NAVOPINTCEN supported by the SEAWATCH II automated data handling system managed and operated by the Naval Intelligence Processing Systems Support Activity. Both organizations are elements of the Naval Intelligence Command and are located in Suitland, Maryland. The SEAWATCH II System is in process of being upgraded and will be completely replaced over the next three years.

NAVOPINTCEN/SEAWATCH is the best single repository of ocean surveillence information available to the US Government and, in addition, possesses an excellent analytical capability. It is likely that data coming from SEAWATCH or through its communications interfaces with the outside world will be the largest single source of JMIE input.

However, NAVOPINTCEN/SEAWATCH has basic limitations, with respect to serving the needs of JMIE subscribers, which will largely persist following the advent of SEAWATCH III. NAVOPINTCEN's mission is national security oriented, focused on intelligence support to the fleet and national level military authorities. Consequently, information of primary significance to JMIE agencies which are law enforcement oriented is of marginal import to NAVOPINTCEN and is largely a spinoff of its primary operations. Thus, the SEAWATCH data base currently accommodates only vessels exceeding 1000 gross tons displacement, while the majority of units of interest, for example, to the Coast Guard, DEA, and the Customs Service are smaller. Expansion of the SEAWATCH data base is technically feasible. However, the resulting quantum increase in data input, update transactions, etc., would seriously degrade system performance in support of NAVOPINTCEN primary mission.

SEAWATCH is optimized for tracking ship movements based on highly structured (formatted) inputs. It does not cope well with the loosely-formatted, variable field input which will comprise a high percentage of available data relevant to the interests of many JMIE participants. SEAWATCH III will not yield significant improvement in this area.

The necessity for NAVOPINTCEN to devote its available personnel resources to its primary mission results in little or no quality control of those portions of the SEAWATCH data base of primary interest to other JMIE members. While it is again technically feasible to provide JMIE subscribers with SEAWATCH remote access terminals whereby data base maintenance and query could be done on a regular basis, security considerations prohibit this approach. Although the data records involved are almost invariably classified SECRET or below, the larger SEAWATCH data base contains information of much higher classification to authorized access is extremely limited. Absent an approved multilevel security system, current regulations (DCID 1/16) do not permit JMIE electronic access to SEAWATCH under such circumstances.

Finally, there are certain statutory constraints that will influence design where, as in the present case, a system is intended to service both intelligence and law enforcement requirements. Although restrictions on the use of intelligence capabilities to assist law enforcement are somewhat less stringent than in the past, the general requirements that the former focus on activities occurring outside the United States and not involve information pertaining to US citizens remain. In order to comply with the law, it will be necessary that the JMIE data base be identifiably distinct from any contributing or associated foreign intelligence data bases, SEAWATCH in particular.

Summarizing the foregoing for design guidance purposes:

- The JMIE system will rely on SEAWATCH for a substantial portion of its data input which will be in the form of processed records or relay of raw data received by SEAWATCH through its external communications interface. In addition, queries will be directed by JMIE subscribers to SEAWATCH historical data files.

- JMIE will also receive data directly from other sources via bulk transfer and remote terminal keyboard input.

- JMIE will operate at the SECRET level on a system-high basis. However, it will provide for discreet retrieval and output of UNCLASSIFIED, CONFIDENTIAL, and Administratively Controlled data.

- The JMIE data base will have no restrictions as concerns the size of targets to be accommodated. The data base will have a multiple file structure with capability to query and retrieve data across files. Both structured (fixed field) and unstructured (variable length field) data will be accommodated.

- Subscriber interaction with JMIE will occur principally through remote terminals located at their own operating facilities. These may be directly connected to the JMIE, processor or, if appropriate, be routed through an in-house data handling system. All terminals will require the physical and cryptographic security protection necessary to permit operation at the SECRET level.